



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

February 1, 2021

Ms. Angela Dunn
U.S. Army Corps of Engineers
P.O. Box 4970
Jacksonville, FL 32232-0019

Re: EPA Review of Port Everglades Harbor Draft Supplemental Environmental Impact Statement, Broward County, Florida. CEQ No.: 20200261

Dear Ms. Dunn:

In accordance with Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) reviewed the U.S. Army Corps of Engineers (USACE) Draft Supplemental Environmental Impact Statement (Draft SEIS) for the Port Everglades deepening project in Broward County, Florida. The project is designed to provide a safe depth for large tankers and container ships currently visiting the harbor, to address the future growth of cargo transported on post-Panamax ships, and to ensure safe navigational conditions for all vessels visiting the harbor.

The USACE previously issued a Draft EIS in June 2013 and a Final EIS in March 2015 proposing to deepen and widen various components of the harbor. At the same time, the USACE was dredging Miami Harbor based on similar data, assumptions, and methodologies proposed for Port Everglades. This approach resulted in substantial impacts to natural resources that exceeded projections in the Miami Harbor Final EIS and the limitations established in the dredging permit issued by the Florida Department of Environmental Protection. The Port Everglades SEIS has benefited from lessons learned from the Miami Harbor project.

In addition to incorporating lessons learned from the Miami Harbor project, the Port Everglades Draft SEIS contains new data from more detailed surveys of environmentally sensitive areas (i.e., mangrove, seagrass, and coral/hardbottom habitats) and information about additional coral species listed under the Endangered Species Act of 1973, as amended. The USACE also developed analytical tools, including a spillage model, to examine the potential areal distribution of dredging-related sediments. The analyses revealed that design refinements and additional compensatory mitigation, monitoring, and adaptive management measures were required to further avoid and lessen potential impacts on hardbottom and coral reef communities.

The Draft SEIS is a substantially improved document regarding the implementation of minimization measures. EPA supports the elimination of dredge overflow and prohibitions on rock chopping as a pretreatment method, cutterhead dredge anchoring outside the existing channel, and dredging of the Inner and Outer Entrance Channels during coral spawning season (i.e., from July through September).

However, the Draft SEIS does not address EPA's concerns about identifying, quantifying, and mitigating impacts as described in the enclosure.

EPA has been involved with the Port Everglades project for more than two decades. We participated on an USACE study team during the early 2000s and accepted the USACE's invitation in 2007 to continue our involvement as a cooperating agency. We provided comments on the previously mentioned Draft and Final EIS and in response to the USACE's [Notice of Intent](#) to prepare a supplemental NEPA document. We also commented on interim deliverables as a member of the Interagency Working Group (IWG) created by the USACE in July 2016.

We look forward to continuing our participation in the Port Everglades IWG and we appreciate the opportunity to provide comments on the Draft SEIS. If you have any questions regarding our comments, please contact Ms. Kim Gates of my staff at (404) 562-9261 or gates.kim@epa.gov.

Sincerely,

Mark J. Fite
Director
Strategic Programs Office

Enclosure

Enclosure

EPA Comments on Port Everglades Harbor Draft Supplemental Environmental Impact Statement, Broward County, Florida. CEQ No.: 20200261

Impact Assessment, Monitoring and Adaptive Management

1. The USACE's method for identifying direct impacts is not consistent with the use of functional assessment methodology required by 40 CFR § 230.93(f)(1), which states that "in cases where appropriate functional or condition assessment methods or other suitable metrics are available, these methods should be used where practicable to determine how much compensatory mitigation is required. If a functional or condition assessment or other suitable metric is not used, a minimum one-to-one acreage or linear foot compensation ratio must be used."

Recommendation: Please identify in the Final SEIS what functional or condition assessments will be used to characterize impacts on the aquatic community (e.g., the Uniform Mitigation Assessment Method (UMAM) commonly used in Florida).

2. In subsection 4.1 of the Draft SEIS, the USACE describes "indirect, or secondary impacts" as including impacts resulting from turbidity, sedimentation, rock rubble movement downslope as a result of the dredging activity, and changes to hydrology and ecological connectivity from sedimentation and turbidity predicted by the spillage model. Although the 404(b)(1) Evaluation (Appendix A) acknowledges that mitigation is required for unavoidable impacts from "direct removal" and "indirect impacts associated with project-related sedimentation," subsection 4.9 indicates that not all indirect impacts will be mitigated. Further, the 404(b)(1) Evaluation (Appendix A) states that "[s]econdary impacts on the aquatic ecosystem are not expected."

The Clean Water Act (CWA) Section 404(b)(1) Guidelines describe secondary effects, rather than indirect impacts, and state that "[s]econdary effects are effects on an aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material." (See 40 CFR § 230.11(h).) Like direct impacts, mitigation is required for secondary effects.

Recommendation: Please address sedimentation and turbidity-related impacts as secondary effects in the Final SEIS. Also, clarify in Appendix A that secondary effects are expected and will be mitigated.

3. Only a portion of the anticipated impacts will receive upfront mitigation, but project construction will be monitored by divers and Remotely Operated Vehicles (ROVs) to detect the full extent of impacts. Although the USACE indicates that post-construction mitigation will be provided, if necessary, the Draft SEIS does not describe the process for determining the actual extent of project impacts.

Recommendation: Please discuss in the Final SEIS how the USACE will use real-time monitoring data to quantify impacts after construction is completed.

4. In subsection 4.4.2 of the Draft SEIS, the USACE indicated that information from the Miami Harbor project is still under review to determine if “spillage associated with rock chopping and unrestricted overflow resulted in the greatest release of fines (silts and clay-sized material) and associated sedimentation-related impacts.”

Recommendation: Please update this discussion in the Final SEIS and provide supporting data and information for the determination as appropriate.

5. In the Adaptive Management Plan (Appendix H), the USACE indicates that it will work with its Engineer Research and Development Center to develop a draft protocol and recommendations regarding decanting procedures for use by its contractors.

Recommendation: Please include information in the Final SEIS about the protocol and the decanting method(s) that will be used during project construction. Further, please distinguish the decanting process from overflow and describe how decanting methodologies may vary depending on the type of dredging equipment utilized.

6. In the impact analysis (Appendix D), the USACE determines acreage of impact to coral and hardbottom communities based on sedimentation depth thresholds supported by scientific literature. These depths are inconsistent with the depths used in the spillage model (Appendix I). For example, the spillage model uses sediment deposition depths of 10 cm, 5 cm, 1 cm, 0.5 cm, and 0.1 cm, whereas the impact assessment uses sedimentation depths of 20 cm, 15 cm, 6 cm, 0.5 cm, and 0.1 cm. Further, the two alternatives or scenarios modeled in Appendix D do not use consistent sediment depths, see Tables D.10 and D.11 and corresponding Figures D.28 and D.29.

Recommendation: Please correct errors in the tables and figures described above to reflect consistent sedimentation depths for the impact analysis in the Final SEIS. Additionally, EPA recommends using depth thresholds consistent with the impact analysis during future runs of the spillage model.

Mitigation

7. As stated above, the USACE distinguishes between direct and secondary impacts in a manner that is not consistent with EPA’s interpretation of the Section 404(b)(1) Guidelines. Moreover, compensatory mitigation is proposed for impacts predicted by the spillage model, which has significant limitations.

Recommendation: EPA recommends defining impacts consistent with the Section 404(b)(1) Guidelines and developing a process for verifying the nature and extent of impacts using monitoring data collected during project construction. Pursuant to 40 CFR 230 Subpart J, “the amount of required compensatory mitigation must be, to the extent practicable, sufficient to replace lost aquatic resource functions” (see 40 CFR § 230.93(f)). EPA also recommends addressing how additional mitigation, if necessary, will be accomplished.

8. The Draft SEIS (in subsection 3.1) acknowledges the presence of previous mitigation areas in the project footprint. Although these areas will be impacted by the project, EPA could not determine

how credits were incorporated in the mitigation plan. EPA has concerns with new projects impacting and encroaching on previous mitigation areas for various reasons, including precedent setting implications and the need to accurately assess the necessary compensatory mitigation for compounded projects.

Recommendation: In the Final SEIS, please describe the calculations used to account for the previous mitigation areas. EPA recommends addressing mangrove impacts from this project in the compensatory mitigation plan, including mangrove impacts from areas within the project footprint that were previously used as mitigation.

9. According to the Final EIS issued in March 2015, mitigation for unavoidable impacts to mangrove wetlands and seagrass habitats will include “compensatory use of an on-going habitat enhancement and restoration project at West Lake Park (WLP) . . . The WLP project includes previously permitted restoration, enhancement, and preservation of like habitats in the county-operated, state-owned natural area located to the south of the project area.” Appendix F of the Draft SEIS reiterates that credits at WLP will be used to mitigate impacts to seagrasses and mangroves.

EPA reiterates concerns expressed in our comment letter on the Impact Assessment dated August 25, 2020. EPA views the WLP as an advanced, permittee-responsible, off-site mitigation area that should comply with 40 CFR 230 Subpart J, Compensatory Mitigation for Losses of Aquatic Resources. EPA also acknowledges that compensatory mitigation plans discussed as early as March 2015 included the use of WLP.

Recommendation: Please provide the mitigation plan(s) containing all 12 elements required by the Rule elements (objectives, site selection, site protection, baseline information, credit calculation, work plan, maintenance plan, performance standards, monitoring plan, long-term management, adaptive management, and financial assurances). Please provide information on parties utilizing WLP mitigation credits. When considering future compensatory mitigation, the USACE should confirm that mitigation sites comply with the Rule.

Spillage Model

10. The spillage model (Appendix I) generates estimates of the spatial distribution and thickness of sediment deposition for four dredging scenarios. However, the model is based on assumptions that may result in erroneous estimates, including:
 - a. The assumption that about one-third of the suspended sediment will be available for dispersion over sensitive resources, with the remainder staying in the harbor or settling in the dredge footprint.
 - b. The assumption that sediment will not be resuspended when areas where deposition has occurred are dredged or due to backwash from the propellers of passing ships.
 - c. The use of a laboratory-derived fall velocity of 0.01 meter/second for sediment dispersion even though information from Miami Harbor indicates that sediment in the area likely contains a significant proportion of smaller particles with slower settling rates.
 - d. The use of one point of discharge even though dredging equipment will be moved throughout the harbor.

- e. The assumption that sediment at one discharge point is characteristic of sediment throughout the harbor
- f. The assumption that sediment transport will only occur in two directions: north and south.
- g. The use of a sediment loss rate during decanting based on a value predicted for a study conducted in San Francisco Bay with significantly different equipment and dredging procedures.

Recommendation: Consistent with recommendations in our spillage analysis comments on April 10, 2020, and in our impact assessment comments on August 25, 2020, EPA recommends the USACE use the time before construction starts in 2023 to refine the model based on real-world data from sediment tracer analyses, trial dredging and/or the planned operation and maintenance dredging. Data from dredging in Miami Harbor may also be useful. In the Port Everglades Final EIS released in March 2015, the USACE indicated that “[t]he material disposed in the Miami Harbor project is the same type of material being dredged at Port Everglades (hard limestone) and should result in similar conditions regarding associated sedimentation and turbidity generated by the material.” EPA notes the USACE’s continued effort to improve the model, and we recommend including a discussion in the Final SEIS about efforts to enhance the model so that it represents physical conditions in Port Everglades harbor.

Corrections

11. Please remove this statement in the Draft SEIS (in subsection 1.10 on page 27 and in subsection 4.20, Table 40, on page 209): “The Draft EA for the expansion of the Port Everglades ODMDS was released for public review and comment by USEPA on August 27, 2013 and will be finalized by USEPA through the rulemaking process.” The following language should be used in its place:

The first Draft EA for the expansion of the Port Everglades ODMDS was released for public review and comment by USEPA on August 27, 2013. Due to the lapse in time, a revised Draft EA and proposed rule were published February 18, 2020 and again, due to public input, on May 22, 2020. The preliminary Finding of No Significant Impact (FONSI) was published for review and comment on August 7, 2020. The Final EA and FONSI are due to be published in early 2021. Expansion of the ODMDS is accomplished by modifying the designation through rulemaking which is anticipated to be published in 2021.”

12. The citations to the Marine Protection, Research and Sanctuaries Act (MPRSA) in the Executive Summary (on page 15), subsection 1.10 (on page 27), and Section 2 (on page 30) should reference Section 102 of the MPRSA, not Section 103.